

INDIGO-CLEAN™ M4SEDIC SERIES

Patented Continuous Environmental Disinfection System

Dual Mode White and Indigo Disinfection LED

PRODUCT FEATURES:

- » Two operational modes: White Disinfection Mode & Indigo Disinfection Mode
- » High performance LED arrays provide uniform lens appearance
- » Diffused high-efficiency lens for reduced glare
- » Symmetric optical distribution
- » Universal housing accommodates either flange (drywall) or grid ceiling applications
- » One-piece sealed housing; smooth exterior doorframe and lens for infection control and simplified cleaning protocols
- » Conducted emissions controlled as per MIL-STD-461G



| PROJECT INFORMATION | |
|---------------------|-------|
| Job Name | _____ |
| Fixture Type | _____ |
| Catalog Number | _____ |
| Approved by | _____ |

SPECIFICATIONS

HOUSING: 20-gauge CRS. Hole-free, one-piece, seam-welded construction. Integral aluminum heatsink for thermal dissipation. 18-gauge housing flange with mitered and welded corners. Gloss white TGIC polyester powder-coat finish with 5-stage pre-treatment. Antimicrobial finish on all exposed painted surfaces of installed luminaire.

DOORFRAME: 18-gauge CRS. One-piece inset-style construction with welded corners. Gloss white TGIC polyester powder coat finish with 5-stage pre-treatment. Doorframe secured to housing with stainless steel aircraft cables and captive, flush-mounted Phillips-head fasteners. Antimicrobial finish standard on all exposed painted surfaces of the installed luminaire. One-piece, closed-cell silicone gasket seals doorframe to housing.

OPTICS: Symmetric optic includes diffused, impact-resistant acrylic lens.

ELECTRICAL: Serviceable mid-power white LED array and high-power 405 nm indigo LED array. Available 3700K and 4300K color temperatures with maximum 3-step MacAdam variation allowance. Minimum 80 CRI standard with optional minimum 90 CRI available. 120-277VAC, 50/60Hz electrical input with serviceable high power factor electronic, constant-current drivers (<20% THD, >0.88 PF). Minimum 85% driver efficiency. Standard 0-10V dimming with 1-100% range with dim-to-dark capabilities in White Disinfection Mode. 1mA maximum source current. Two operational modes: White Disinfection Mode is a white LED array for ambient lighting plus simultaneous low-power 405nm indigo array for low-level continuous environmental disinfection. Indigo Disinfection Mode is a high power 405nm Indigo LED array for continuous environmental disinfection. Operational mode determined via internal low-voltage device based upon input provided by external IC100 room control system. EMC meets or exceeds MIL STD 461G conducted requirements.

INSTALLATION: Non-IC recessed ceiling mounting into grid and flange application types. Flange installation utilizes included adjustable swing-out mounting brackets. Grid installation suitable for 1" and 1.5" T-bar ceilings. Universal installation into flange (drywall) or grid ceiling applications.

PHOTOMETRICS: Photometry tested to the IESNA LM-79-08 standard. For additional photometric data, please contact Indigo-Clean@Kenall.com.

PATENT: Indigo-Clean products and technology covered by U.S. Patent No. US 9,039,966 and US 8,398,264. Product may also be covered by patents found at www.kenall.com/patents. Other patents pending.

WARRANTY: Limited five (5) year Kenall LED warranty.

LISTINGS: Luminaire is certified to UL standards by Intertek Testing Laboratories for IC and Wet Location installations. ETL certified IP65 per IEC 60598. NSF2 Splash/Non-Food Zone. Meets FED-STD-209E/Class 1 (ISO 3) Cleanrooms. Conducted emissions compliant with MIL-STD-461G limits. CCEA Approved.



ORDERING INFORMATION (Ex: M4SEDIC-24-150I/100L-43K8-DCC-DV-2F-2H-SYM)

| Model | Size | Lamp Power | Lamp Color | Driver | Input Voltage | Doorframe | Housing | Optics | Options |
|-------------------|---|------------|------------|--------------------------|---|-----------|---------|----------------|---|
| M4SEDIC | | | | DCC | DV | | | SYM | |
| Size | | | | Driver Type | | | | Optics | |
| 14 | 1'x4' Nominal | | | DCC | 0-10V Dimming | | | SYM | Symmetric, Diffused DR Acrylic |
| 22 | 2'x2' Nominal | | | Input Voltage | | | | Options | |
| 24 | 2'x4' Nominal | | | DV | 120-277VAC, 50/60Hz | | | LEL | 8.4W Integral Emergency Battery Pack |
| Lamp Power | | | | Doorframe Options | | | | FS | Fuse & Holder |
| 1'x4' | | | | 2F | 18-Ga CRS Painted Antimicrobial (STD) | | | RM* | Continuous Row Mounting |
| 75I/50L | 75 Watt Indigo/50 Watt White Disinfection LED | | | AF | Anodized Aluminum | | | | |
| 2'x2' | | | | PAF | Painted Antimicrobial Fabricated Aluminum | | | | |
| 75I/50L | 75 Watt Indigo/50 Watt White Disinfection LED | | | 5F | 20-Ga Type 304 SS Brushed | | | | * Only available when installing in drywall ceilings (flange mount) |
| 2'x4' | | | | Housing Options | | | | | |
| 150I/100L | 150 Watt Indigo/100 Watt White Disinfection LED | | | 2H | 20-Ga CRS; Painted Antimicrobial (STD) | | | | |
| Lamp Color | | | | 5H | 20-Ga Type 304 SS | | | | |
| 37K8 | 3700K, 80 CRI | | | PAH | .050" Painted Antimicrobial Aluminum | | | | |
| 37K9 | 3700K, 90 CRI | | | | | | | | |
| 43K8 | 4300K, 80 CRI | | | | | | | | |
| 43K9 | 4300K, 90 CRI | | | | | | | | |



www.kenall.com | P: 800-4-Kenall | F: 262-891-9701 | 10200 55th Street Kenosha, Wisconsin 53144, USA

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INDIGO-CLEAN™ M4SEDIC Series

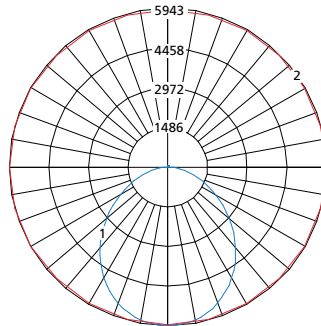
Patented Continuous Environmental Disinfection System

Dual Mode White and Indigo Disinfection LED

| Size | Mode | Lamp Code | Delivered Lumens (lm) | Input Power (W) | Color Rendering | | TM-30 Color Quality | | Est. L70 LED Life (Hrs) |
|-------|--------------------------|----------------|-----------------------|-----------------|-----------------|----------------|---------------------|----------------|-------------------------|
| | | | | | R _a | R _g | R _f | R _g | |
| 1'x4' | White Disinfection Mode | 75I/50L-37K8 | 6,787 | 68 | 85 | 15 | 80 | 100 | 125,000 |
| | | 75I/50L-37K9 | 5,576 | 68 | 96 | 59 | 92 | 100 | |
| | | 75I/50L-43K8 | 6,767 | 68 | 84 | 11 | 80 | 99 | |
| | | 75I/50L-43K9 | 5,759 | 68 | 93 | 53 | 90 | 98 | |
| | Indigo Disinfection Mode | All | - | 75 | - | - | - | - | 50,000 |
| 2'x2' | White Disinfection Mode | 75I/50L-37K8 | 7,093 | 69 | 85 | 15 | 80 | 100 | 125,000 |
| | | 75I/50L-37K9 | 5,827 | 69 | 96 | 59 | 92 | 100 | |
| | | 75I/50L-43K8 | 7,073 | 69 | 84 | 11 | 80 | 99 | |
| | | 75I/50L-43K9 | 6,019 | 69 | 93 | 53 | 90 | 98 | |
| | Indigo Disinfection Mode | All | - | 75 | - | - | - | - | 50,000 |
| 2'x4' | White Disinfection Mode | 150I/100L-37K8 | 14,712 | 138 | 85 | 15 | 80 | 100 | 125,000 |
| | | 150I/100L-37K9 | 11,434 | 138 | 96 | 59 | 92 | 100 | |
| | | 150I/100L-43K8 | 14,669 | 138 | 84 | 11 | 80 | 99 | |
| | | 150I/100L-43K9 | 12,483 | 138 | 93 | 53 | 90 | 98 | |
| | Indigo Disinfection Mode | All | - | 149 | - | - | - | - | 50,000 |

Information subject to change without notice. TM-30 Color Vector Graphic available upon request. Visit www.kenall.com for .ies files and additional information.

Model: M4SEDIC-24-150I/100L-43K8-DCC-DV-2F-2H-SYM

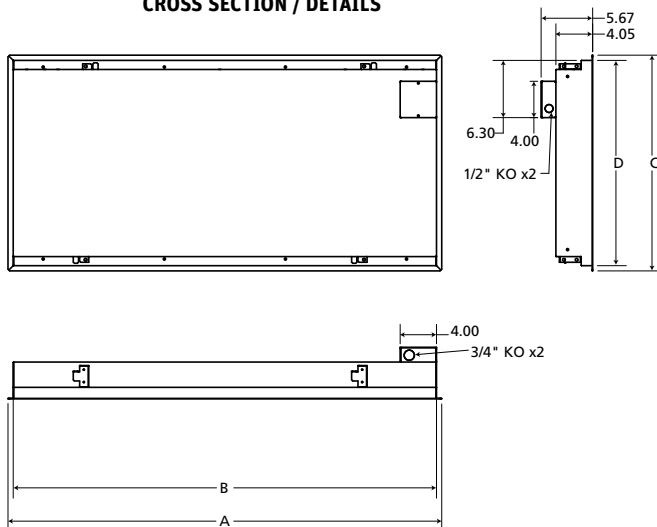


Maximum Candela = 5943 Located At Horizontal Angle = 0, Vertical Angle = 2.5

— 1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)
 — 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

DIMENSIONAL DATA

CROSS SECTION / DETAILS



DIMENSIONAL DATA (IN INCHES)

| | A | B | C | D |
|---|-------|-------|-------|-------|
| 1x4 | 47.75 | 46.60 | 11.75 | 10.60 |
| Recommended Ceiling Cut-Out 10.85 x 46.85 | | | | |
| 2x2 | 23.61 | 22.60 | 23.61 | 22.60 |
| Recommended Ceiling Cut-Out 22.85 x 22.85 | | | | |
| 2x4 | 47.75 | 46.60 | 23.75 | 22.60 |
| Recommended Ceiling Cut-Out 22.85 x 46.85 | | | | |



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INDIGO-CLEAN™ ROOM CONTROLLER SYSTEM

IC100 SERIES

PRODUCT FEATURES:

- » Room-level Disinfection Mode Control
- » Infrared & Ultrasonic Occupancy Detection

SPECIFICATIONS

IC100 CONTROLLER: Centralized, zonal whole room continuous disinfection. Automatically switches Indigo-Clean luminaires between white disinfection and Indigo-Clean disinfection modes. Receives input from (3) passive-infrared (PIR) and (1) ultrasonic sensor with optional switch (by others). 0-10VDC dimming signal output to luminaires. Integral LED indicators provide system status. Dual technology controller requires input from both PIR and ultrasonic sensors. Maximum sink current per controller: 30mA.

IC100 SENSORS: Operates by low-voltage power provided by IC100 Controller. **INFRARED:** System includes three (3) passive infrared (PIR) occupancy detection. Lenses provide 360° coverage, 48' diameter from 8' height. Adjustable occupancy time-out delay 0-30 min. **ULTRASONIC:** System includes one (1) high-frequency (40kHz) occupancy detector suitable for open area detection with line-of-sight obstructions; includes sensitivity adjustment. Adjustable occupancy time-out delay 0-30 min.

CONTROLLER HOUSING: Seam-welded 18-gauge CRS. White TGIC polyester powder coat finish with five-step pre-treatment. Housings provided with multiple 1/2" and 3/4" conduit knockouts. Controller housing includes clear polycarbonate window for viewing of system status indicators. Silicone gasketing. Pin-tumbler style keyed lock. All locks are keyed alike, two keys included.

INSTALLATION: Controller housing suitable for mounting to wall or ceiling surfaces with four-point mounting. All signal cabling shall be wired Class I with 18AWG, 600V TFFN wire. IC100 ultrasonic and PIR sensors suitable for mounting to ceiling junction box.

| PROJECT INFORMATION | |
|---------------------|-------|
| Job Name | _____ |
| Fixture Type | _____ |
| Catalog Number | _____ |
| Approved by | _____ |



Controller



Ultrasonic Sensor
One (1) included



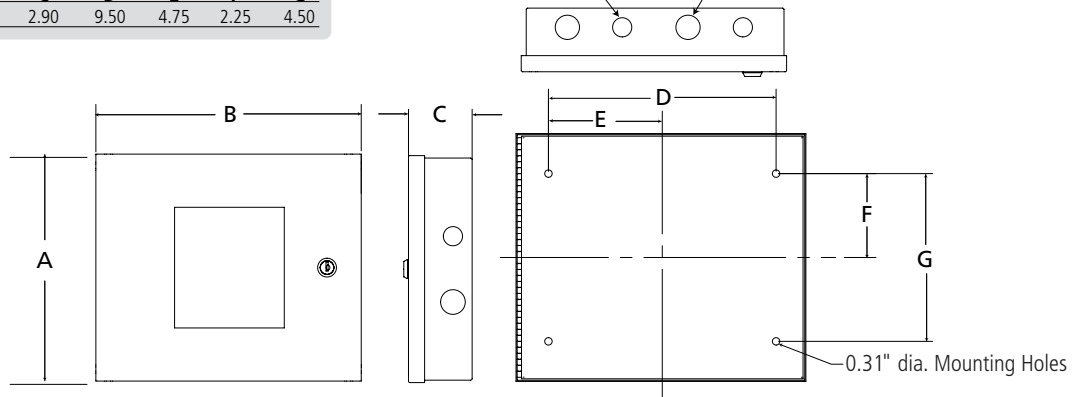
PIR Sensor
Three (3) included

CONTROLLER HOUSING

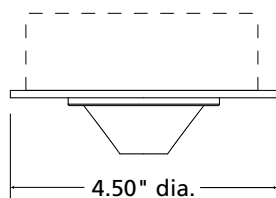
DIMENSIONAL DATA (IN INCHES)

| A | B | C | D | E | F | G |
|------|-------|------|------|------|------|------|
| 6.85 | 14.10 | 2.90 | 9.50 | 4.75 | 2.25 | 4.50 |

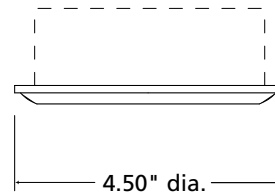
1/2" Conduit Knockout (6 Places Total) 3/4" Conduit Knockout (6 Places Total)



PIR SENSOR



ULTRASONIC SENSOR



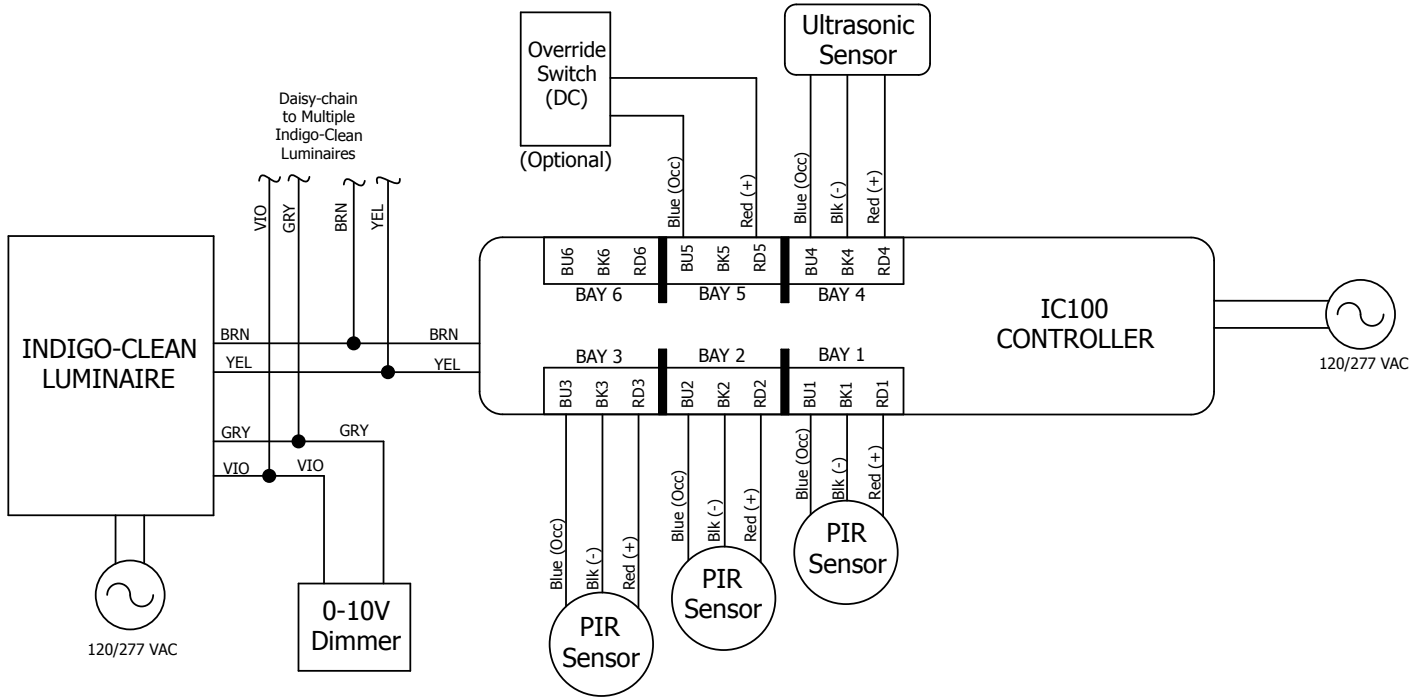
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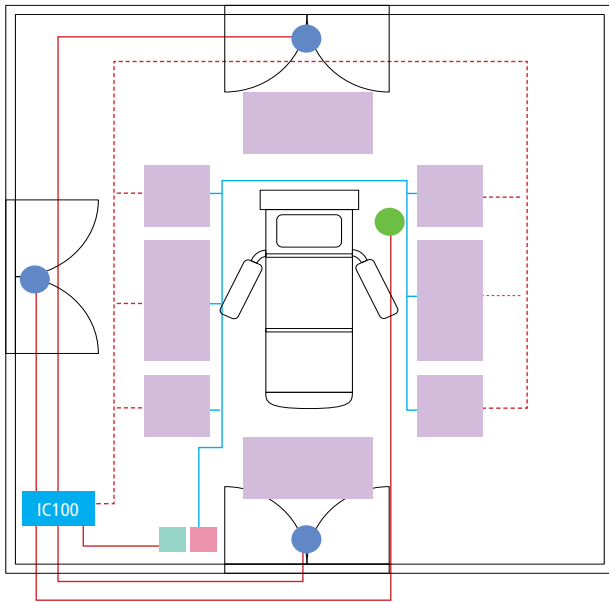
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INDIGO-CLEAN™ ROOM CONTROLLER SYSTEM

IC100 SERIES WIRING DIAGRAM



TYPICAL LUMINAIRE/IC100 CONTROLS ROOM LAYOUT



- Indigo-Clean Fixtures
- Ultrasonic Sensor
- Passive Infrared Sensor
- External 0-10V Dimmer
- White Disinfection Mode Override Switch (DC) <OPTIONAL>

IC100 Mode Control Load Limits

| Product | Source Current per Luminaire (mA) | Max Luminaires per IC100 Controller |
|------------|-----------------------------------|-------------------------------------|
| M4SEDIC-14 | 0.5 | 60 |
| M4SEDIC-22 | 0.5 | 60 |
| M4SEDIC-24 | 1 | 30 |
| MEIC-22 | 0.25 | 120 |
| MEIC-24 | 0.5 | 60 |
| M4DLIC6 | 0.25 | 120 |

NOTE: Multiple Indigo-Clean product types may be controlled from a single IC100 controller as long as the maximum sink current rating (30µA) is not exceeded.



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